

## ABSTRACT OF THE DISCLOSURE

An assembling method and an apparatus for carrying out the method capable of efficiently, reliably and easily detecting an insertion and fitting position, for easy automatic assembly. In case a rod-like workpiece is inserted into a hole in an object, an insertable range is determined based on an amount of clearance between the workpiece and the hole, an amount of chamfering of the hole, etc. The insertable range is defined as within a range centered at a hole center position  $3cp$  and having a radius of  $r$ . A workpiece center position is indicated by  $1cp$ . While the workpiece is moved once throughout a search range (XL-XU) in the X-axis direction, it is moved in the Y-axis direction by an amount equal to or less than an insertable range amount  $2r$ . As shown by a dotted line, the workpiece center  $1cp$  passes without fail through the insertable range during the motion throughout the search range (XL-XU, YL-YU). When the workpiece center  $1cp$  falls within the insertable range, the workpiece that is pressed toward the object is inserted into the hole.